

**REMARKS**

**Summary of the Office Action**

Claims 1, 2, and 7-10 stand rejected under 25 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,259,926 to Kuwabara et al.

Claims 11-13 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0028875 to Van Rijn et al.

Claims 16, and 17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,900,160 to Whitesides et al.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,259,926 to Kuwabara et al. in view of U.S. Patent No. 5,668,379 to Ono et al.

Claims 4-6, 14, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,259,926 to Kuwabara et al. in view of U.S. Patent No. 5,900,160 to Whitesides et al.

**Summary of the Response to the Office Action**

Claim 1 has been amended to describe the invention differently. Claims 11-17 have been cancelled without prejudice or disclaimer. Accordingly, claims 1-10 are presently pending.

**All Claims Comply with 35 U.S.C. § 102(b)**

Claims 1, 2, and 7-10 stand rejected under 25 U.S.C. § 102(b) as being anticipated by U.S.

Patent No. 5,259,926 to Kuwabara et al. To the extent the Examiner considers these rejections to apply to newly amended independent claim 1, it is traversed as being based on a reference that neither describes nor suggests the novel combination of features now recited in amended independent claim 1. For example, claim 1 now recites, amongst other features, “forming a self-aligned monolayer layer on a substrate having an etching layer thereon” and “forming a self-aligned monolayer pattern on the etching layer exposing a portion of a surface over the substrate by separating the master from the substrate, wherein the portion of the surface has a width substantially the same as the convex portion of the master.”

Applicants respectfully submit that Kuwabara et al. discloses a method for forming a pattern by a printing method in which a resist is coated on an etching object layer, a master with a convex pattern is brought into contact with the resist, pressure is applied to the master until the convex pattern of the master contacts the etching object layer and then, the master is removed from the substrate to thereby form a resist pattern on the etching object layer. Unlike the resist in Kuwabara et al., the presently claimed invention uses a self-aligned monolayer to form a fine pattern. The self-aligned monolayer is only scores of angstroms (Å) thick. The self-aligned monolayer of the presently claimed invention is different from the resist of Kuwabara et al. in that the resist is much thicker than self-aligned monolayer of the presently claimed invention. The larger thickness of the resist in Kuwabara et al. renders a less accurate pattern. In other words, the self-aligned monolayer of the presently claimed invention will form a finer and more precise pattern.

For at least the reasons as those discussed above, Applicants respectfully assert that the rejection under 35 U.S.C. § 102(b) should be withdrawn because Kuwabara et al. does not teach or suggest each feature of independent claim 1, as newly-amended. As pointed out in MPEP § 2131, “[t]o anticipate a claim, the reference must teach every element of the claim.” Thus, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).” Furthermore, Applicants respectfully assert that the rejections of dependent claims 2, and 7-10 should also be withdrawn at least because of their dependencies upon independent claim 1 and for the reasons set forth above.

Claims 11-13 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0028875 to Van Rijn et al. Claims 16 and 17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,900,160 to Whitesides et al. By way of the foregoing amendment, claims 11-13, 16 and 17 have been cancelled without prejudice or disclaimer. Accordingly, Applicants respectfully assert that these 35 U.S.C. § 102 rejections are moot.

**All Claims Comply with 35 U.S.C. § 103(a)**

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,259,926 to Kuwabara et al. in view of U.S. Patent No. 5,668,379 to Ono et al. Claims 4-6

stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,259,926 to Kuwabara et al. in view of U.S. Patent No. 5,900,160 to Whitesides et al. To the extent the Examiner considers these rejections to apply to newly amended independent claim 1, it is traversed as being based on references that neither describe nor suggest the novel combination of features now recited in newly amended independent claim 1. For example, newly amended independent claim 1 now recites, amongst other features, “forming a self-aligned monolayer layer on a substrate having an etching layer thereon” and “pressing the master against the substrate until the convex pattern of the master directly contacts the etching layer.” Kuwabara et al. has a deficiency in that it fails to teach or suggest pressing the master against the substrate until the convex pattern of the master directly contacts the etching layer, as recited in newly amended independent claim 1. Applicants respectfully assert that Van Rijn et al., Whitesides et al. or Ono et al. do not cure the deficiency of Kuwabara et al. as discussed above with regard to newly amended independent claim 1.

The cited reference of Ono et al. has no suggestion or teaching with regard to a self-aligned monolayer layer. Accordingly, Applicants respectfully assert that claim 3 is allowable at least because of its dependence on independent claim 1, as amended, and for the additional features that it recites. Accordingly, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claim 3 be withdrawn.

The cited references Van Rijn et al. and Whitesides et al. disclose printing methods using a self-aligned monolayer layer. In the printing methods of Van Rijn et al. and Whitesides et al.,

the self-aligned monolayer layer is formed on the convex surface of the convex pattern of the master, and then the self-aligned monolayer layer is transferred onto the etching object layer. However, the printing methods of Van Rijn et al. and Whitesides et al. are different from presently claimed invention of newly amended independent claim 1. More specifically, the presently claimed invention is different from the printing methods of Van Rijn et al. and Whitesides et al. in that the self-aligned monolayer layer of the presently claimed invention is formed on the etching object layer and the master is pressed against the substrate until the convex pattern of the master directly contacts the etching layer. There is no teaching or suggestion in either Van Rijn et al. or Whitesides et al. of “pressing the master against the substrate until the convex pattern of the master **directly** contacts the etching layer.” Applicants respectfully assert that the master in Van Rijn et al. and Whitesides et al. is lowered to merely apply the self-aligned monolayer layer without any **direct** contact of the master in either Van Rijn et al. or Whitesides et al. to the etching layer.

For at least the above reasons, Applicants respectfully assert that all of the pending 35 U.S.C. § 103(a) rejections are improper because Kuwabara et al., either alone or in combination with Van Rijn et al., Whitesides et al. or Ono et al., does not teach or suggest all of the features recited in newly amended independent claim 1. Moreover, dependent claims 4-6 are allowable for the same reasons as discussed above and for the additional features that they recite. Thus, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 4-6 be withdrawn.

Claims 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over

U.S. Patent No. 5,259,926 to Kuwabara et al. in view of U.S. Patent No. 5,900,160 to Whitesides et al. By way of the foregoing amendment, claims 14 and 15 have been cancelled without prejudice or disclaimer. Accordingly, Applicants respectfully assert that this 35 U.S.C. § 103 rejection is moot.

**CONCLUSION**

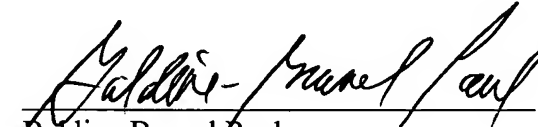
In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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